REMARKS

After entry of this amendment, the pending claims are: claims 35-55.

Overview of Amendments

The above amendments are made to remove any doubt that what is aggregated includes "directories of the multiple file systems **in a plurality of file servers** in the group of file servers," "file objects of the multiple file systems, each of the **file objects having portions stored in different file servers**," or the "namespace of multiple file systems **in a plurality of servers** in the group of file servers." None of these types of aggregating steps are disclosed in Wang or Thomas.

35 U.S.C 102(e) Rejection

In the Final Office Action, the Examiner rejected claim 35 as being anticipated by Wang. As amended, claim 35 recites that what is aggregated includes "directories of the multiple file systems **in a plurality of file servers** in the group of file servers" and "file objects of the multiple file systems, each of the **file objects having portions stored in different file servers**."

Wang does not disclose aggregating from multiple file servers, at a file switch.

Wang discloses only two types of storage aggregation, basic RAID support 1070 and virtual disks 1072-1074. Column 21, lines 26-28. Both of these types of storage aggregations are only applied to "a large set of disks." Column 21, lines 28-40. Wang specifically states that the disks **do not run server software**. Column 21, lines 28-29. It is also clear from the dashed lines in Figure 10, that this "storage aggregation" is only applied to multiple disks in a single server. Applicant's review of Wang found no teaching or suggestion that Wang's switch aggregates directories, file objects, or namespace from a plurality of servers. The switch in Wang does not perform the operations of the "file switch" recited in the pending claims of this invention. In fact, in every embodiment, the switch in Wang directs each file transaction to a single server, which precludes aggregation over multiple servers. In the third embodiment of Wang, the switch/thin server 1020 functions as a thin server to access the disks of slave servers 1040, 1094, and 1096. See, Column 17, lines

3-6. Wang does teach that the slave server 1040 within the thin server 1020 performs standard RAID or virtual disk storage aggregation in communication with the "network attached disks 1090-1092." See, Column 17, lines 47-50. None of the functions of the thin server or slave server in Wang aggregate directories, file objects, or namespaces from a plurality of servers as claimed.

Wang, therefore, does not anticipate claim 35, or any other pending claim. Removal of this ground for rejection is requested.

35 U.S.C 103(a) Rejection

In the Final Office Action, the Examiner rejected claim 36-55 as being unpatentable over Wang in view of Thomas. As amended, claims 39-54 recite, *inter alia*, that what is aggregated includes

> "directories of the multiple file systems **in a plurality of file servers** in the group of file servers"

and

> "file objects of the multiple file systems, each of the file objects having portions stored in different file servers."

Claims 36-38 and 55 recite, *inter alia*, that what is aggregated includes the

> "namespace of multiple file systems **in a plurality of servers** in the group of file server."

Claims 36-38 and 55 also recite that

> "the set of name-mapping rules includes a first rule for mapping a first set of user path names **to server path names in a first server of the plurality of servers**, and a second rule for mapping a second set of user path names **to server path names in a second server of the plurality of servers**."

Neither Wang nor Thomas discloses aggregating from multiple file servers, at a file switch.

As amended, independent claims 35, 36, 45, and 55 require the aggregation functions to be performed at the file switch across multiple file servers. As discussed above, Wang neither teaches nor discloses this limitation. Thomas is not cited for and does not disclose or teach this limitation either. As a consequence, the cited combination does not teach or disclose all the limitations of the pending claims. The cited combination is not, therefore,

obvious. Since the dependent claims include the limitations of their parent claims, the dependent claims are also non-obvious with respect to the cited combination. Removal of this ground for rejection is requested.

    <u>Thomas does not disclose applying a set of name-mapping rules including a first rule and a second rule to a user path name to generate a server path name.</u>

    With respect to independent claims 36 and 55, and claims dependent thereon, the Examiner's re-asserts that Thomas, in columns 9 and 15, teaches "applying [a] set of name-mapping rules to [a] user path name to generate a server path name." In fact, what Thomas teaches in column 9 (location repository) is a structure or table for mapping objects to specific storage locations, and in column 15 (implementation repository) Thomas teaches a structure for mapping object types to storage locations of the executable procedures associated with each object type. In neither of these examples is a "user path name" mapped to a "server path name." The only path name disclosed in Thomas is the "Library Path Name," but it is not mapped to any other path name.

    The Examiner re-asserts that the "broadest reasonable interpretation" of the claim language regarding path names and name-mapping rules reads on Thomas. Applicant respectfully points out that the **interpretation of the claim words must be reasonable** "in their ordinary usage as they would be understood by one of ordinary skill in the art" as well as broad. See, MPEP §2111 quoting In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ.2d 1023, 1027-1028 (Fed. Cir. 1997). For example, in Perguson Beauregard/Logic Controls v. Mega Systems, dictionary definitions were used to determine ordinary meaning to those skilled in the art. Found at 350 F.3d 1327, 1338, 69 USPQ.2d 1001, 1009 (Fed. Cir. 2003) and cited in MPEP §2111.01 [III].

    The term "path name" is well known in computer science. A "path name" is typically defined to mean "a file name specifying all directories leading to a file" (AIX documentation, IBM) or "a series of directory names, separated with slashes (/), that specifies the location of a file" (Solaris documentation, Sun Microsystems). The Computer Dictionary, Second Edition, published in 1994 defines a path name as "a listing of the directories or folders that lead from the current directory to a file" in a hierarchical filing system. The object identifiers in Thomas do not have a "user path name," or any other path name.

Further with respect to claims 36, 46 and 55, it is noted that the terms "user path name" and "server path name" have specific meanings in these claims. In particular, these claims specify that the "user path name" is included in a file access transaction received by the file switch from a client, and the server path name is used in a file access transaction performed by the file switch (i.e., on behalf of the client). The Examiner has responded that the terms "user path name" and "server path name" do not appear in the specification. The Applicant respectfully submits that the term "path name" is used on page 29 of the specification (see paragraph on page 29 starting with "Figure 6 illustrates"). Examples of user path names are shown on the left side of Figure 6, examples of server path names are shown on the right side of Figure 6, and examples of name-mapping rules are shown in the middle of Figure 6. The meaning of the term "user path name" is clear from Figure 6 in conjunction with the accompanying text on pages 29-30, which identifies path names 601-603 of incoming file requests initiated by a network client. Similarly, the "server path names" are generated at the file switch by applying name-mapping rules 605-607 to the path names of the incoming file requests (Figure 6).

Thus, Thomas does not teach or suggest "applying [a] set of name-mapping rules to [a] user path name to generate a server path name … wherein the set of name-mapping rules includes a first rule … and a second rule" as claimed.

As demonstrated above all of the pending claims include limitations that are neither taught nor suggested by the combined teachings of Wang in view of Thomas. Withdrawal of the rejections under 35 U.S.C. 103 is respectfully requested.

Conclusion

In light of the above amendments and remarks, the Applicant respectfully requests that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney at (650) 843-7501, if a telephone call could help resolve any remaining items.

Respectfully submitted,

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